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FOREST PEST MANAGEMENT
Pacific Southwest Region

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BIOLOGICAL EVALUATION OF KAWANOMI PROGENY TEST SITE, ELDORADO NATIONAL FOREST

PSW FOREST AND RANGE EXPERIMENT STATION
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ABSTRACT

The Kawanomi Progeny Test Site on the Pacific Ranger District, Eldorado National Forest was examined for insect and disease problems. Disease problems noted were annosus root disease and true fir dwarf mistletoe.

INTRODUCTION

In September, 1985, the Kawanomi Progeny Test Site on the Pacific Ranger District, Eldorado National Forest, was examined to determine the presence of, or potential for, insect and disease problems which may affect the objectives of the Regional Tree Improvement Program.

OBSERVATIONS

The site (T13N., R14E., Sec. 17) is located on South Creek Road about two miles off Ice House Road from Highway 50, and is within a mixed conifer stand which was logged in 1982, and 1984. The site has many large sugar pine, white fir, and incense-cedar stumps. Annosus root disease caused by the fungus Fomes annosus was found in some of the large white-fir stumps within the test site. White fir dwarf mistletoe (Arceuthobium abietinum f.sp. concoloris) was found in the white fir adjacent to the site. This site is to be planted to white fir and sugar pine in 1987.

DISCUSSION

Annosus root disease was found in white fir stumps. Once established in a stump or tree the fungus grows into and through the host roots until it contacts the roots of adjacent trees, where it infects and invades their root systems. Fomes annosus can remain viable in infected roots or stumps for many

years. Young conifers established within infection centers often may die or exhibit reduced growth after their roots contact infected roots of the stump. The removal of stumps and the double-discing that will occur on this site will remove most of this pest and greatly reduce the chances of the seedlings becoming infected by annosus root disease.

Two alternatives for protecting the progeny test site from dwarf mistletoe are available depending on how long the site is to be used. If the site will be used for only a short period 25 years or less one can reduce the chances of infection in this short period by removing all infected white fir in a 100 ft wide buffer strip around the progeny test site. If the progeny test site is to be used over a longer period one can remove all the white fir (infected and non-infected) in a 100' buffer around the progeny test site. This second more drastic alternative will prevent the mistletoe from gradually invading the buffer strip and eventually infesting the progeny test planting.